Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

data bearing on this subject is highly important, since the decrease in game may on as New Mexico is more and more thickly settled, and the hunting ceremonials be more or less modified as time goes on.

I have not encountered in my experience in taking records with the phonograph any very great difficulty among the Zuñians. Their real impressions of the instrument it is very difficult to divine. One of them asked if a person was hidden in the machine, and another thought the phonograph bewitched. Indians are so stolid that it is very difficult to discover what impression such a novel instrument as the phonograph really makes. They are so accustomed to incomprehensible machines used by Americans that this last triumph of inventive genius affects them no more than many others which might be mentioned. Certainly they are not afraid of it, and there is no difficulty in getting them to talk into the instrument. The great difficulty in getting them to repeat their sacred songs and prayers does not come so much from their fear of the instrument as of secularizing what is sacred to them. They will readily respond with any of their secular songs, or with those sung in public, but those belonging to the secret ceremonials of the Estufa they will not divulge.—J. WALTER FEWKES, *Zuni, New Mexico, July 5th, 1890.*

PROCEEDINGS OF SCIENTIFIC SOCIETIES.

Biological Society of Washington.—May 31.—The following communications were read: Characteristics of the Halosauroids or Lyopomes; Dr. Theo. Gill. Exhibition of Specimens of New Species of North American Mammals; Dr. C. Hart Merriam. *Coultorella* a New Genus of *Compositæ;* Dr. J. N. Rose. Organisms in the St. Peter's Sandstone; Prof. Joseph F. James.—FREDERIC A. LUCAS, *Secretary.*

Natural Science Association of Staten Island.—May 8, 1890.—The following paper by Mr. Chas. W. Long was read: Staten Island Fire Flies.—No one will have failed to notice the abundance on Staten Island of the beetle commonly known as the firefly. As it is seen in early summer, in the words of Longfellow:

> "Flitting through the dusk of evening,
> With the twinkle of its candle,
> Lighting up the brakes and bushes,"

it constitutes one of the peculiar charms of our latitude. It has been described by many a poet as well as naturalist, and those who have watched it through a warm June night will not wonder that the naturalist, like Mr. Silas Wegg, may be tempted to "drop into werse." No prose can perfectly represent the mazy evolutions of its flight, but the following from the pen of Mr. Philip Gosse will be found the most accurate: "They fly slowly, and as they fly, emit and conceal their light at intervals of two or three seconds; making interrupted lines of light through the air, gleaming slowly along for about a yard, then suddenly quenched, and appearing again at the same distance ahead." He, like Longfellow, compares the light to candles in the woods. Indeed he says though told what they were, at every one that appeared, the same idea would come across his mind, but the comparison is not so apt with us, for we rarely see them singly, and it rather seems as if they were stars moving through the bushes, or twinkling in some deep valley as we look into it from the hills above. They resemble the stars, too, in the thought of infinite number they suggest. It would be a hopeless task to count the number one can see in a single summer night. And considering the countless summer nights that have elapsed since the first firefly appeared on the globe (fossil Lampyridæ are found in Miocene rocks) the total of all the motions that they have made since then may well suggest a number approaching to mathematical infinity.

Apart from their beauty, our fireflies possess a great interest from the entomologist's point of view, for we find in them some characters specialized to an extraordinary extent. It is unfortunate that among the nine or ten species represented on Staten Island, of which I append a descriptive list, the special sexual characters are not developed as fully as in the Southern species and in the English "glow worm." In the latter, the light organs of the female reach their highest point and she is destitute of wings, while the male possesses normal wing power and very large eyes; clearly indicating the relation of the characters to the reproduction of the species. The light organs of the male are feeble, being useless as an attraction to the female, able only to crawl slowly in the grass. The same characters are found in some of our Texan species, but the only approach to it among the Staten Island species is in *Photinus scintillans*, our most abundant "firefly," of which the female is wingless. The eyes, however, and the light organs are equally developed in each sex.

The antennæ also present some curious forms, none more so than those of *Phengodes plumosa*, a southern species whose occurence on Staten Island was discovered by Mr. W. T. Davis, to whom I am indebted for my specimen. Here the antennæ consist as usual of eleven linear joints, from each of which proceed two branches, as long as the entire antennæ, curved and fringed both sides with long hair. The branches become shorter toward the outer extremity, and the effect is very similar to a white ostrich plume. The females of this and all the species of Phengodes are unknown. Beyond these characters, the fireflies resemble the general coleopterous form. It is not difficult to catch and examine one, for they frequently rest on a stalk of grass, continuing to give out the intermittent yellow gleam, thus guiding one to the spot. In the hand the insect will be found to consist, seen from above, of the thorax in front, a semicircular piece ornamented with rosy patches and a black spot, and two "elytra," parallel yellowish pieces, comprising the greater part of the dorsal aspect. Beneath will be found the head, concealed from above by the hood-like thorax, with biting jaws; the six legs possessed by all beetles; and the abdomen, divided into segments, from the last three proceeding the light which gives the family its name and renown. The light may be watched, throbbing and pulsating, as the small creature silently tells that it, like its captor, lives and breathes. If it be crushed, the light still continues for a time, but gradually dies away. In the dried specimens these segments are cream colored. The physical cause of the luminosity in fireflies is unknown. Dr. Leconte cites some partially successful experiments to isolate the actual luminous substance by Dr. T. L. Phipson and others, and the name "Noctilucine" has been applied to it, and its existence stated in varied forms of marine life, in Myriapoda and in putrid fish, but I am not aware that positive results have been reached.

The larvæ of these insects are also somewhat luminous, and are found in the grass in summer. They are carnivorous, and are to be reckoned among the beneficial insects.

The description of the firefly is taken particularly from the species common in gardens, and the flight of that insect (*P. scintillans*) is also described, and as Mr. Davis has mentioned to me that the larger species have a more rapid flight, it is proper to so state here to guard against error.

This list of our species includes all known to me from the neighborhood of New York, and Phengodes is new to the fauna of the vicinity. Being the result of the observations of two persons only, it would be hazardous to represent it as complete, particularly in view of the warm and sandy character of the southern end of the island, where we may hope to find additions to our list. They may be sought by jarring the leaves and branches of shrubbery where they remain during the day.

LIST OF THE SPECIES OF SUB-FAMILY LAMPYRIDÆ.

- Head more or less covered by the hood-like thorax; antennæ not plumose:
  - Head completely covered; 2d joint of antennæ small; transverse;
    - Antennal joints very broadly compressed; color black; sides and apical margin of thorax fulvous, .28-.44 ins. 1. *Lucidota atra.*
    - Antennal joints not broadly compressed;
      - Eyes small; color black; thorax fulvous, with disk and sides black; last dorsal segment in male rounded, .28-.54 ins. 2. *Ellychnia corrusca.*
      - Eyes small; last dorsal segment in male bisinuate and truncate;
        - Prothorax with black disk and reddish yellow sides, .25 ins. 3. *Pyropyga nigricans.*
        - Prothorax with black disk and edge, .25 ins. 4. *Pyropyga decipiens.*
      - Eyes large; prothorax subcarinate; elytra with wide side margin;
        - Elytra black, margin and suture yellow; thorax like No. 2, .30-.50 ins. 5. *Pyractomena angulata.*
      - Eyes large; prothorax not carinate; elytra without wide margin;
        - Larger species; female elytra long like male, .36-.52 ins. 6. *Photinus pyralis.*
        - Smaller species; female wingless, elytra short, .22-.32 ins. 7. *Photinus scintillans.*
  - Head only partially covered; 2d joint of antennæ not transverse, as long as 3d.
    - Color dull yellow; prothorax red on disk, with a dark medial stripe, elytra dull yellow, more or less striped with black, .42-.60 ins. 8. *Photuris pennsylvanica.*
- Head exposed; antennæ plumose;
  - Elytra subulate, color testaceous, .50 ins. 9. *Phengodes plumosa.*

The length of the insect in 100ths of an inch is indicated before the name. The species numbered 4 and 5 are northern insects and rare with us, and No. 9 is, as stated above, a southern species. The light organs are more feeble in 1 to 5, and more strongly developed in 6 to 8, which are the common "fireflies."

A preliminary list of the mosses of Staten Island, compiled by Mrs. N. L. Britton, was presented, which will be published as an extra.

Mr. Arthur Hollick showed dried specimens of *Clematis ochroleuca*, collected during the past month at Richmond, which is a new locality for this interesting plant, or perhaps only an extension of the previously known localities on Todt Hill and at Egbertville. It was in great abundance, accompanied, as usual, by *Cerastium arvense*, var. *oblongifolium* in dense clusters, particularly where the serpentine had been exposed. Mr. Hollick also showed staminate catkins of *Salix fragilis*, from a tree in Richmond, which were bi- and tri-furcated. This peculiar state of the catkins of this willow was noted some years since on a tree at Prince's Bay (See *Bull. Torr. Bot. Club*, VI., 312), and it is not unlikely that it may be looked for in other places.

Mr. L. P. Gratacap presented a block of Potsdam sandstone, beautifully ripple-marked, from the drift at the base of the bluff on the shore at Tottenville. Also clay ironstone containing plant remains and nodules of pyrite from the same locality, and lignite from the clay beds near Kreischerville.

Mr. Ira K. Morris read a paper upon "Some Old Staten Island Springs."

American Association for the Advancement of Science, 1889.—REPORT OF THE COMMITTEE ON ANATOMICAL NOMENCLATURE, WITH SPECIAL REFERENGE TO THE BRAIN.—During the past year some of the members of the Committee have given to the subject intrusted to them as much time as their regular duties would permit. They agree upon one point, viz., the advantages, other things being equal, of *mononyms* (single word terms) over polynyms (terms consisting of two or more words). Before making specific recommendations or presenting a final report, the Committee think it advisable that they and other anatomists should have an opportunity of discussing at leisure the simplified nomenclature which they are informed is employed in certain treatises which will be published during the coming winter. They therefore ask to be continued.

BURT G. WILDER, *Chairman.*
HARRISON ALLEN,
FRANK BAKER,
HENRY F. OSBORN,
T. B. STOWELL,
Committee.

The Association of American Anatomists.—PRELIMINARY REPORT OF THE COMMITTEE ON ANATOMICAL NOMENCLATURE, ADOPTED DECEMBER 28, 1889, BY THE ASSOCIATION.—The Committee recommend:

1. That the adjectives *dorsal* and *ventral* be employed in place of *posterior* and *anterior* as commonly used in human anatomy, and in place of *upper* and *lower* as sometimes used in comparative anatomy.

2. That the cornua of the spinal cord, and the spinal nerve-roots, be designated as *dorsal* and *ventral* rather than as *posterior* and *anterior*.

3. That the costiferous vertebræ be called *thoracic* rather than *dorsal*.

4. That the *hippocampus minor* be called *calcar*; the *hippocampus major*, *hippocampus*; the *pons Varolii*, *pons*; the *insula Reilii*, *insula*; *pia mater* and *dura mater*, respectively *pia* and *dura*."

Signed by all the members.

JOSEPH LEIDY, *Chairman*.
HARRISON ALLEN,
FRANK BAKER,
THOMAS B. STOWELL,
BURT G. WILDER.

Thomas Dwight was added to the committee.

The Committee desire frank and full expressions of opinion from scientific and medical journals, from individuals who receive copies, and from any others who are interested in the subject.

BURT G. WILDER, *Sec'y*.

SCIENTIFIC NEWS.

The Alvarenga Prize, of the College of Physicians of Philadelphia, consisting of one year's income of the bequest of the Señor Alvarenga, of Lisbon, has been awarded to Dr. R. W. Philip, of the Victoria Dispensary for Consumption and Diseases of the Chest, Edinburgh, for his Essay on Pulmonary Tuberculosis, which will be published by the College.

Entomological Club, A. A. A. S.—The Entomological Club of the A. A. A. S. will meet at Indianapolis, August 20, at 9 A. M. There should be a large attendance of entomologists at this meeting, especially of those in the West. The officers are: Professor A. J. Cook, President, and F. M. Webster, Secretary, and both are doing all in their power to make the meeting a success. Professor Cook writes: "Please urge a large attendance from both Canada and the United States. All are invited to be present, and to bring or send papers."